

CLAIMS

We Claim:

- 1 1. A method for graphically presenting multiple signals, comprising
- 2 the following step:
 - 3 (a) separately representing on a display a signal for each measured
 - 4 frequency channel, including the following substep:
 - 5 (a.1) superimposing representations of the signals, including
 - 6 the following substeps:
 - 7 (a.1.1) aligning center channel frequencies for all the
 - 8 representations of the signals relative to a single position on a first axis, and
 - 9 (a.1.2) indicating, for all the representations of the
 - 10 signals, amplitude relative to a second axis.
 - 1 2. A method as in claim 1 additionally comprising the following step:
 - 2 (b) displaying a line, intersecting the single position on the first axis,
 - 3 that indicates the center channel frequency for all the representations of the
 - 4 signals.
 - 1 3. A method as in claim 1 additionally comprising the following step:
 - 2 (b) displaying a mask that indicates when values for the signals are
 - 3 outside channel frequency limits and that indicates when values for the
 - 4 signals are outside channel amplitude limits.
 - 1 4. A method as in claim 1 additionally comprising the following steps:

2 (b) displaying a mask that indicates when values for the signals are
3 outside channel frequency limits and that indicates when values for the
4 signals are outside channel amplitude limits; and,
5 (c) using margin from the mask as a tool to measure the quality of
6 signals.

1 5. A method as in claim 1 additionally comprising the following steps:

2 (b) displaying a mask that indicates when values for the signals are
3 outside channel frequency limits and that indicates when values for the
4 signals are outside channel amplitude limits; and,
5 (c) counting mask hits as a tool to measure the quality of signals.

1 6. A method as in claim 1 wherein substep (a.1) additionally includes
2 the following substep:

3 (a.1.3) using pixel color to indicate how many representations of the
4 signals overlap each pixel.

1 7. A method as in claim 1 wherein substep (a.1) additionally includes
2 the following substep:

3 (a.1.3) using shades of gray to indicate how many representations of
4 the signals overlap each pixel.

1 8. A method as in claim 1 wherein substep (a.1) additionally includes
2 the following substep:

3 (a.1.3) using shades of color to indicate how many representations of
4 the signals overlap each pixel.

1 9. An instrument that measures multiple signals, comprising:
2 a display; and,
3 an analyzer that separately represents on the display a signal for each
4 measured frequency channel, wherein representations of the signals are
5 superimposed so that center channel frequencies for all the representations
6 of the signals are aligned relative to a single position on a first axis, and so
7 that for all the representations of the signals, amplitude is indicated relative
8 to a second axis.

1 10. An instrument as in claim 9 wherein the analyzer additionally
2 represents on the display a line intersecting the single position on the first
3 axis, the line indicating the center channel frequency for all the
4 representations of the signals.

1 11. An instrument as in claim 9 wherein the analyzer additionally
2 represents on the display a mask that indicates when values for the signals
3 are outside channel frequency limits and that indicates when values for the
4 signals are outside channel amplitude limits.

1 12. An instrument as in claim 9 wherein the analyzer additionally
2 represents on the display a mask that indicates when values for the signals
3 are outside channel frequency limits and that indicates when values for the

4 signals are outside channel amplitude limits, margins from the mask being
5 used as a tool to measure the quality of signals.

1 13. An instrument as in claim 9 wherein the analyzer additionally
2 represents on the display a mask that indicates when values for the signals
3 are outside channel frequency limits and that indicates when values for the
4 signals are outside channel amplitude limits, mask hits being counted as a
5 tool to measure the quality of signals.

1 14. An instrument as in claim 9 wherein pixel color on the display
2 indicates how many representations of the signals overlap each pixel.

1 15. An instrument as in claim 9 wherein shades of gray of pixels on
2 the display indicate how many representations of the signals overlap each
3 pixel.

1 16. An instrument as in claim 9 wherein shades of color to indicate
2 how many representations of the signals overlap each pixel.

1 17. A method for measuring multiple signals, comprising the
2 following steps:

3 (a) representing on a display a signal for each measured frequency
4 channel; and,
5 (b) displaying masks that indicate when values for the signals are
6 outside channel frequency limits;

1 18. A method as in claim 17 wherein in step (b) the displayed masks
2 also indicate when values for the signals are outside channel amplitude
3 limits.

1 19. A method as in claim 17 additionally comprising the following
2 step:

3 (c) using margin from the mask as a tool to measure the quality of
4 signals.

1 20. A method as in claim 17 additionally comprising the following
2 step:

3 (c) counting mask hits as a tool to measure the quality of signals.